73. **(Amended)** The receptor of Claim 70, wherein **[said receptor has a preference for UTP over UDP]** in the presence of UTP and UDP, the receptor presents a functional response to lower concentrations of UTP than to UDP or an increased response to similar concentrations of UTP than UDP.

74. **(Amended)** An isolated nucleic acid molecule encoding a receptor which has at least a two-fold preference for pyrimidine nucleotides over purine nucleotides, wherein said receptor has an amino acid sequence having more than 60% homology with the DNA sequence shown in SEQ ID NO:1, wherein in the presence of pyrimidine nucleotides, the receptor presents a functional response to lower concentrations of pyrimidine nucleotides than to purine nucleotides or an increased functional response to similar concentrations of pyrimidine nucleotides than to purine nucleotides.

75. **(Amended)** The isolated nucleic acid molecule of Claim 74, wherein said nucleic acid molecule is cDNA**[or genomic DNA]**.

80. **(Amended)** An antisense probe having a sequence fully complementary to an isolated nucleic acid molecule encoding a receptor which has at least a two-fold preference for pyrimidine nucleotides over purine nucleotides, wherein said receptor has an amino acid sequence having more than 60% homology with the DNA sequence shown in SEQ ID NO:1, wherein in the presence of pyrimidine nucleotides, the receptor presents a functional response to lower concentrations of pyrimidine nucleotides than to purine nucleotides or an increased functional response to similar concentrations of pyrimidine nucleotides than to purine nucleotides **[nucleic acid probe comprising at least 15 nucleotides capable of specifically hybridizing to a unique sequence included within the nucleic acid molecule of Claim 73, so as to prevent translation of its mRNA molecule]**.

84. **(Amended)** A method for determining whether a ligand can activate a receptor having at least a two-fold preference for pyrimidine nucleotides over purine nucleotides, wherein said receptor has an amino acid sequence having more than 60% homology with the amino acid sequence shown in SEQ ID NO:2, comprising the steps of:

preparing an extract from cells expressing the receptor;

isolating a membrane fraction from said extract;

contacting said membrane fraction with said ligand; and

assaying said membrane fraction for increased receptor activity, wherein increased activity indicates that said ligand is an activator of said receptor, wherein in the presence of